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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/003,071	12/06/2001	Noel McDonald	Q67567	4872

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2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3213

EXAMINER

LEE, BENNY T

ART UNIT	PAPER NUMBER
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2817

DATE MAILED: 07/02/2003

Please find below and/or attached an Office communication concerning this application or proceeding.



UNITED STATES DEPARTMENT OF COMMERCE
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.

EXAMINER	
ART UNIT	PAPER NUMBER
	10

DATE MAILED:

This is a communication from the examiner in charge of your application.

COMMISSIONER OF PATENTS AND TRADEMARKS

- ☐ This application has been examined ☒ Responsive to communication filed on 23 April 2003 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire Three (3) month(s), 2 days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- | | |
|--|---|
| 1. <input type="checkbox"/> Notice of References Cited by Examiner, PTO-892. | 2. <input type="checkbox"/> Notice re Patent Drawing, PTO-948. |
| 3. <input type="checkbox"/> Notice of Art Cited by Applicant, PTO-1449 | 4. <input type="checkbox"/> Notice of Informal Patent Application, Form PTO-152 |
| 5. <input type="checkbox"/> Information on How to Effect Drawing Changes, PTO-1474 | 6. <input type="checkbox"/> _____ |

Part II SUMMARY OF ACTION

1. ☒ Claims 1-14, 16-22 are pending in the application.
Of the above, claims _____ are withdrawn from consideration.
2. ☐ Claims _____ have been cancelled.
3. ☐ Claims _____ are allowed.
4. ☒ Claims 1-14, 16-19; 20-22 are rejected.
5. ☐ Claims _____ are objected to.
6. ☐ Claims _____ are subject to restriction or election requirement.
7. ☐ This application has been filed with informal drawings which are acceptable for examination purposes until such time as allowable subject matter is indicated.
8. ☐ Allowable subject matter having been indicated, formal drawings are required in response to this Office action.
9. ☐ The corrected or substitute drawings have been received on _____. These drawings are: ☐ acceptable;
☐ not acceptable (see explanation).
10. ☐ The ☐ proposed drawing correction and/or the ☐ proposed additional or substitute sheet(s) of drawings, filed on _____, has (have) been ☐ approved by the examiner. ☐ disapproved by the examiner (see explanation).
11. ☒ The proposed drawing correction, filed 23 April 2003, has been ☐ approved. ☒ disapproved (see explanation). However, the Patent and Trademark Office no longer makes drawing changes. It is now applicant's responsibility to ensure that the drawings are corrected. Corrections MUST be effected in accordance with the instructions set forth on the attached letter "INFORMATION ON HOW TO EFFECT DRAWING CHANGES", PTO-1474.
12. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received
☐ been filed in parent application, serial no. _____; filed on _____.
13. ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
14. ☐ Other

SN 3071

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The disclosure is objected to because of the following informalities: A brief and detail description of newly proposed --figure 8-- is lacking from the specification. Also newly reference labels (23, 24) need to be explicitly described relative to "figure 3". Appropriate correction is required.

The drawings are objected to under 37 C.F.R. 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the movable dielectric between the board and ground plane (cl 9) and the remote servo (cl 12) must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. Note that in view of the above objections to new figure 8 and new reference labels (23, 24), the proposed drawing corrections have been disapproved and the above noted drawing objection stands.

Claims 1-14, 16-19; 20-22 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In claims 1, 20 with regard to "the computer optimization means" for providing "aggregate reflection of said signals ...", the specification fails to adequately describe this aspect

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of the invention such that one skilled in the art is not enabled to make and use the invention intended by applicant.

In claim 5, similarly the "radio frequency analysis" and "optimization computer program" are not disclosed in such detail that one skilled in the art is not enable to make and use the invention as intended by applicant.

Applicant's arguments filed 23 April 2003 have been fully considered but they are not persuasive.

Applicants' have argued that one skilled in the art given the disclosure of this application along with common knowledge in the art would have been able to make and use the invention without "undue experimentation".

The examiner finds this argument unpersuasive. Given that it is the aggregation of reflections which appears to be critical to analyzing and optimizing the shape of each phase shift finger, it would appear that explicit information pertaining to this aspect of the invention is critical to the understanding of the invention. Accordingly, a mere assertion that such aggregation, analysis & optimization would have been within the purview of one skilled in the art would be unsatisfactory. In other words, if such aspects of the invention is considered well known in the art, then the specification should, at the very least, point to some documentation in the prior art indicating how this aggregation, analyzing & optimization would have been achieved.

Claim 20 has been found objectionable since in line 5, "form" should be rephrased as -- comprises-- for a more appropriate apparatus recitation.

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The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 C.F.R. 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 20-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hampel et al ('462), of record.

Hampel et al (figs. 13, 16) discloses a phase shifter arrangement for a phase antenna array. The phase shifter arrangement (1316, 1616) comprises three or more dielectric phase shift segments (1350, 1360, 1370; 1650, 1660, 1670, 1680) extending from an edge of a movable or driven element (1318; 1618) such that the phase shift segment overlaps the corresponding conductive trace segments thereby effecting a desired phase shift. Note that air gaps/spaces are present between adjacent phase shift segments. Furthermore, note that the phase shift segments are interposed between the signal traces and a ground plane (e.g. see Fig. 5B). Although not explicitly disclosed the manner of how to optimize the spacing and gaps of the phase shift arrangement would obviously be within the purview of one of ordinary skill in the art.

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Note that in each of the above rejections, the optimization by computer program, being a method limitation, has not been given any patentable weight.

Applicant's arguments filed 23 April 2003 have been fully considered but they are not persuasive. It should be noted that applicants' do not appear to have explicitly argued why Hampel et al does not meet the above noted claims. It should be noted that the limitation regarding the different shaped fingers is not present in the rejected claims 20-22.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 ^FCAR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 ^FCAR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication should be directed to Benny Lee at telephone number 308 4902.


BENNY T. LEE
PRIMARY EXAMINER
ART UNIT 2817